UNIVERSITY OF SOUTHERN CALIFORNIA
CHRONICLE
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In this issue

USC in the Community.....3
Q&A: Sample on Asian Ties.....4
Honorary Degree Recipients.....6
Valedictorian and Salutatorians.....8
USC's Youngest Grad.....10
Satellite Ceremonies.....11
USC in the News: Year's Top-10.....12
Dating a Caveman.....16

Gowned for glory

JOHN LIVZEY

JOHN LIVZEY

IRENE FERTIK

JOHN LIVZEY

Images from last year's festivities.

May 10, 1996

113th Commencement

by Carol Tucker

Commencement speaker John H. Johnson, chairman and CEO of the Johnson Publishing Co. Inc. – the largest black-owned publishing company in the world and publisher of *Ebony* magazine – will seek to inspire some 9,353 expected graduates at USC's 113th commencement ceremonies, to be held on Friday, May 10.

The processional march into Alumni Memorial Park will begin at 8:30 a.m., followed by the commencement exercise at 9 a.m. Rabbi Susan Laemmle, director of the USC Hillel Jewish Center and interim director of campus ministry, will deliver the invocation.

President Steven B. Sample will confer an expected 4,934 bachelor's degrees, 3,655 master's degrees and 764 doctorates during the ceremony. This year's graduates include students expecting to finish their coursework during the upcoming summer sessions, in addition to those who completed their programs during the 1995-96 academic year.

KARIN BOHN

Chicago publisher Johnson's rise to success is one of the most inspiring stories of entrepreneurship in the last half of the 20th century. In 1942, he used a $500 loan to launch the first issue of *Negro Digest*, a magazine that focused on the accomplishments of African-Americans. *Negro Digest* gave way in 1945 to *Ebony*, now the nation's most widely circulated black-oriented magazine.

In his 1989 autobiography, *Succeeding Against the Odds*, published by Warner Books, Johnson describes how no one wanted to risk a penny on a 24-year-old insurance worker seeking to start a black commercial magazine.

"That's been the story of my life," Johnson writes in his book. "At every critical turning point in my life, people, black and white, always told me no at first. And I almost always turned the no's into yes's."

Even Roy Wilkins, editor of *The Crisis*, former house organ of the NAACP, advised Johnson, "Save your energy. Save yourself a lot of disappointment."

Wilkins later became the NAACP's executive director. Johnson writes that one of the sweetest moments of his life was when Wilkins called to apologize for giving him bad advice.

Many people attribute his success to luck, but that isn't the whole story, Johnson insists.

"I made some of my luck," he writes. "I made it by working hard and trusting the logic of events, which always favors the bold and the active and the prepared."

In addition to Johnson, the university will confer honorary degrees on scien-

➤ *continued on page 8*

IRENE FERTIK

Commencement highlights

Speaker John H. Johnson, page 6
Valedictorian Kemal Demirciler, page 8
Honorary degree recipients, pages 6 and 7
Salutatorians, pages 8 and 9
Listing of satellite ceremonies, page 11

JON NALICK

George P. Teitelbaum (right) and Jeannie Rhoten prepare to perform an endovascular carotid angioplasty.

Surgeons pioneer new stroke therapy

by Christopher Tedeschi

WHEN A STROKE blocks blood vessels in the head, brain cells start to die. With little time to spare, physicians have to find a way to re-open these narrowing vessels and maintain a healthy blood supply to the brain.

A new technique gives USC physicians a less invasive alternative to surgically scooping out debris from the artery. Specialists in the Department of Neurological Surgery at the School of Medicine have recently begun using a small balloon to expand narrowing blood vessels.

The new approach is called carotid angioplasty. Under the direction of George P. Teitelbaum, associate professor of neurological surgery, USC has built a strong team equipped to perform the delicate technique.

The group of neurosurgeons, anesthesiologists, vascular radiologists and other specialists performed USC's first carotid angioplasty about three months ago, and have since completed more than 10 of the procedures at USC University Hospital.

The carotid artery – a large vessel that supplies blood to the head, neck and brain – can become blocked by fatty deposits or blood clots. When the artery cannot maintain a steady flow of blood, oxygen-deprived brain cells die, resulting in permanent damage.

Carotid angioplasty offers an alternative to more invasive, conventional vascular surgery – although it neither replaces nor necessarily outperforms the older technique.

"We do [vascular surgery] well, we have experience, and we have a good track record," Teitelbaum said.

However, angioplasty can be preferable to surgery in patients for whom surgery is too risky, or for people whose arterial blockage is in a hard-to-reach area.

THE PROCEDURE BEGINS with the insertion of a long hollow tube into an artery near the groin. The tube snakes up the artery, to the area behind the jaw and to the location of a clogged vessel.

Once the tube, also known as a catheter, is in position, surgeons inflate a balloon located

JON NALICK

In carotid angioplasty, long catheters, like this one, carry small balloons to arteries clogged with fatty deposits, widening the passage to allow blood flow.

at the tube's end, near the obstruction. The balloon expands the artery to its original size, causing fatty deposits or other debris to be pushed aside. The widened blood vessel is kept open by a stainless steel stent – a tiny cylindrical device that looks like a miniature "Chinese finger torture" toy.

The stent permanently lines the inside of the damaged artery, and prevents the channel from collapsing on itself and reverting to its obstructed state. The flexible stents used by Teitelbaum's team can bend around sharp angles in the head's small blood vessels.

"You try to move as quickly as you can," said Teitelbaum, because patients with blocked carotid arteries are at risk of losing brain cells from lack of oxygen.

The whole procedure takes less than two hours. Most patients leave the hospital 24 to 48 hours after the procedure.

As with any surgery, the balloon technique is not without danger.

Patients have a small chance of stroke as a result of the procedure, but the risk is often dramatically smaller than the risk of stroke should a dangerous condition be left untreated.

Most methods for opening clogged arteries in the brain are successful only when performed within the first few hours after a stroke. With such a critical time factor, it's important that patients at risk for stroke understand the symptoms and know that quick medical attention could save their lives.

"There's an enormous job to be done in the way of public education," Teitelbaum said, "and there is the potential to change dramatically the number of deaths." ❖

Bonnie Bullough dies

NURSING PROFESSOR Bonnie Bullough, whose groundbreaking sex research and advocacy for nurse practitioners won her international recognition, died April 12 of pulmonary disease. She was 69.

During a distinguished career that spanned several decades, Bullough authored more than 30 books and 100 articles on nursing, sociology and human sexuality, often in collaboration with her husband, Vern Bullough.

Bonnie Bullough

She was perhaps best known for her advocacy on behalf of nurse practitioners. Bullough was instrumental in boosting the profession's authority nationwide in making decisions about treating patients, according to Adele Pillitteri, chair of nursing. She also helped elevate the level of nurse practitioner education at a time when many programs were being created almost as an afterthought.

"Nurse practitioner programs were tiny little add-ons," Pillitteri said. "Bonnie was one of the people who said 'No, no, no. These people are taking tremendous responsibilities and they need to have more education behind them.' She really helped define what their role would be."

BORN IN DELTA, UTAH in 1927, Bullough served as a cadet nurse at the end of World War II. She married Vern Bullough in 1947 and received her nursing diploma soon after. In 1962, she completed a master's degree in nursing at UCLA; subsequently, she also received a master's and a doctoratal degree in sociology.

On faculty at UCLA and Cal. State-Long Beach until 1979, she climbed from sociology instructor to professor of nursing, chair of primary care and coordinator of the graduate nursing program. During that time, she guided the creation of a curriculum for nurse practitioners and advised other schools nationwide in setting up their programs.

From 1980 to 1993, Bullough served as a professor and dean of nursing at State University of New York, Buffalo. She also worked part-time as a nurse practitioner for Health Care Plan and Planned Parenthood, as her interest in contraception, sexuality and population issues grew.

Bullough joined USC's faculty in 1993; two years later, she shared the Kinsey Award for Research on Human Sexuality with her husband.

Bullough's many books include: *Cross Dressing, Sex and Gender*; *Women and Prostitution, A Social History*; *Contraception: A Guide to Birth Control Methods*; *Nursing in the Community*; *Nursing Issues for the Nineties and Beyond*; and *Human Sexuality: An Encyclopedia.*

As a child, Bullough suffered serious burn injuries and spent many years in the hospital. This experience, according to her husband, shaped her approach to nursing.

"She always wanted to do more for patients and clients," he said. "She was energetic, yet calm and supportive. She was also very modest, so a lot of people never knew what she accomplished."

– Jon Nalick

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USC IN THE COMMUNITY

This monthly column spotlights USC's community service efforts. Articles by Carol Tucker and Jon Nalick.

Local experts

Community residents will soon have a new resource to help them track down expert advice on subjects ranging from business management to child rearing.

This fall, USC's Neighborhood Resource Center, under the auspices of the School of Social Work, will publish "Community Connections," a new guide that identifies experts who live or work in the University Park/Exposition Park area.

"We want to promote the idea that there is expertise residing in the neighborhood," said project coordinator Gene Alper, "expertise that exists outside the academic community. This project helps people in the community network with one another to solve problems."

The Neighborhood Resource Center is currently gathering information on local experts in arts and culture, children and youth, economic development, education, employment, housing and safety.

Alper encourages USC faculty and staff to nominate candidates for the directory. Experts must live or work in the university's neighborhood.

Besides acting as consultants to neighbors, experts listed in the directory may also be asked to make public presentations for schools and church groups, Alper said, or to comment on issues in the local media. USC faculty may also invite these experts to be guest lecturers.

The Neighborhood Resource Center is currently soliciting donations, advertisements and sponsorships from local businesses to fund "Community Connections." The directory will be distributed free to schools, churches, block clubs and other community groups.

For more information about "Community Connections" or to nominate an expert, call 743-2390. ❖

More information

For information on community programs, contact the USC Office of Civic and Community Relations at 740-5480. A database of more than 200 such programs is also available at **http://www/usc.edu/dept/CCR/**

JON NALICK

Sophomore biological science major Edward Loh whispers to Emperor Middle School student Jimmy Brett in a game of "telephone."

Playground peace talks

When 12-year-old Danny Kenan gets in an argument on the playground, he knows how to resolve it without using his fists.

He talks out his problems, using techniques he learned from USC students as part of an innovative program designed to help kids communicate better and avert violence.

"You need to know how to handle things so you don't get into fistfights – or any fights at all," Danny said. "When you get older, it's even more important because you can get in more trouble. When you grow up and get in fights, you go to jail."

Danny is one of about 75 students in the PACE program at Emperor Middle School in Temple City, near Pasadena.

PACE – which stands for "Peer Adolescent Conflict Education" – was created last year by Brian Sippy and Ben Broder, both M.D./Ph.D. students in USC's Presidential Fellows Program.

Lynn Radulovich, a 6th-grade teacher, has noticed a big difference in playground behavior since the program began.

"It used to be a kid would say, 'You offended me, and I'm going to knock your teeth down your throat.' Now they sit down and talk it out," she said.

More than a dozen USC medical students, undergraduates and graduate students are helping implement the program. They moderate role-playing games with students, teaching them how to interpret body language and how to diffuse potential arguments before they escalate.

Medical student Mark Gonzalgo is coordinating the program this year with Steven Ayala, a graduate student in the School of Business Administration.

Teaching youngsters empathy encourages them to consider the impact their words and actions have on others. At the same time, the students learn to recognize their own negative feelings and beliefs and then use mental strategies to change them.

PACE consists of three phases. In the first, children learn to actively listen to others; in the second, they learn to recognize and identify different kinds of conflicts; and in the third, they learn how to manage conflicts.

During one recent exercise, students practiced reading body language in a role-playing game. The youngsters silently acted out emotions ranging from boredom and shyness to anger and happiness until their classmates identified each one.

In another exercise, this time underscoring the importance of listening, students played a game of "telephone." Sitting in a circle, they took turns whispering a secret message to the person on their right. When the message became garbled in transit, the students learned a useful lesson: even when people *try* to pay attention, perfect communication isn't guaranteed. ❖

Native explorers

En route to seeing the treasures of the Los Angeles County Natural History Museum, some 50 Vermont Avenue School 5th-graders learned a lesson about the richness of their own neighborhood.

On a recent Friday morning, escorted by their teachers and nine USC student volunteers, the youngsters marched south on Vermont Avenue and east on Jefferson Boulevard to the University Park Campus, then down University Avenue to the museum.

"We want the kids to get used to walking to the museum and other sites in and around Exposition Park, so that they and their families will begin to use the resources the neighborhood has to offer," said Samuel Mark, assistant vice president of USC Civic and Community Relations.

As the pilot visit in the Family of Five Schools' Neighborhood Exploration Program, the March 22 event involved a partnership among CCR, the museum's education staff, and the Inter-Fraternity and Panhellenic Councils, which coordinated the USC student volunteers.

"The student volunteers feel they have a stake in what the elementary school students were doing," said Dhyana Colony, philanthropy chair for the Panhellenic Council. "They really feel they make an impact on these kids."

Passing through campus had the added benefit of acquainting the youngsters with USC, Colony noted. The walk prompted several kids to ask USC students about college life.

Once at the museum, the children learned about the daily lives of Southern California's Native American peoples, including the Chumash and Gabrieleno. The program, led by the museum's education staff, is titled "Acorns, Sea and Sage."

Afterwards, the children broke into small groups, led by the USC students, to explore the Hall of Native American Cultures and the Hall of Pre-Columbian Cultures.

IRENE FERTIK

In a small group session, children from Vermont Elementary School examine artifacts associated with local Native American tribes. Junior biology/business major Jonathan San Juan shows how to listen to the surf inside a seashell.

"Our goal is to get the students into the museum to see the kind of work we do," said Lisa Kightlinger, the museum's assistant chief of education. Unlike the standard tour for large school groups, she said, this program provided a higher level of individual attention.

The Natural History Museum exploration was one of the first projects developed by the Family of Five Schools Programs Task Force, headed by Rino Patti, dean of the School of Social Work.

Jennifer Trochez, a graduate student and Neighborhood Exploration coordinator, said next year's programs will target 3rd- to 5th-grade students at all Family of Five schools. Other exploration events may take youngsters to the Coliseum, the Afro-American Museum, the California Museum of Science and Industry, and the Exposition Park Library. ❖

I N T E R N A T I O N A L I S M

Eastward, ho!

PATRICIA TRYGONIS

When president Steven B. Sample traveled to Asia in 1994, he was merely retracing the steps of thousands of Trojans. USC ranks among the top three American universities in terms of foreign enrollment, and more and more of these alumni are based in Tokyo, Seoul, Beijing and Bangkok. In all, since World War II, more than 20,000 East and Southeast Asian students have attended USC. No wonder, then, that when the university unveiled its Strategic Plan for the next century, emphasis on internationalization was among the four main priorities, with attention to the Pacific Rim figuring prominently.

Recently, Sample spoke to *USC Chronicle* on his vision of USC's present and future relations with Asia. Below are excerpts from that dialogue.

Interview by Eric Mankin

USC Chronicle: USC is putting a great deal of resources into forging ties with nations abroad. What's the rationale for this?

SBS: The reason, essentially, is that USC has a unique opportunity to emerge as the most global of all American universities. "Internationalization" is one of the four initiatives outlined in the Strategic Plan for the University of Southern California, which our Board of Trustees adopted in June of 1994. It represents an opportunity to build on one of USC's greatest and most unique natural and historical advantages.

We already have been a global university for some time now. During a trip to Asia in 1994, I had an opportunity to visit with the prime minister of Malaysia. I thought he'd give me about five or 10 minutes, but we met for nearly an hour in private – discussing a wide range of educational, economic and political issues. After our meeting, I thanked the prime minister for being so generous with his time. He replied, "But Dr. Sample, of course I must accommodate the president of USC. After all, my government is riddled with these – what do you call them? – these Trojans."

And, indeed, the prime minister was right. A majority of the secretaries-general of his cabinet departments, his personal chief of staff, the Lord Mayor of Kuala Lumpur, and the president of the University of Malaya are all graduates of USC. Kathryn and I have found similarly high-placed Trojans in the public and private sectors of China, Japan, Korea, Indonesia, Taiwan, Hong Kong and Singapore.

USC Chronicle: What does this say about USC?

SBS: It says something wonderful – that this university has been educating the leaders of the world. Not only the leaders of Los Angeles and Washington, D.C., but leaders everywhere. And we intend to build on this strength.

It's important to remember that we're building on an existing structure. This isn't a university out in the middle of an Iowa cornfield that suddenly decides it wants to internationalize. For more than a century our university has had a large and diverse international student body. The first foreign students came to USC in the 1880s, and by the 1920s there were students on campus from more than 20 countries. Past presidents, especially Rufus von KleinSmid and John Hubbard, worked hard at developing USC as an international center.

Today, we're among the top three of all U.S. universities in terms of international enrollment, with over 4,000 international students on campus. And we now have the nation's largest body of Asian alumni – over 20,000 – with alumni organizations in Tokyo, Seoul, Beijing, Bangkok, Jakarta, Taipei, Singapore and many other international capitals.

"I have never met a professional person in any Asian country who does not have a friend or a relative living in Southern California."

USC Chronicle: Why has USC been successful in this area in the past?

SBS: The key reasons would be our openness since our founding, and our location here in Southern California. USC is an integral part of a global center that is increasing in international importance. Southern California is a young region with boundless energy and potential, and it is the most culturally and ethnically diverse region in the world. It really has become the cultural crossroads of the world.

There is one thing I've noticed as I've traveled through Asia: I have never met a professional person in any Asian country who does not have a friend or a relative living in Southern California. And I've met hundreds and hundreds of them.

Southern California has also emerged as the communications capital of the world, because of the motion picture and the television industries. Those two media have become the most powerful and ubiquitous forms of communication in the history of mankind, and they are centered here. Moreover, Southern California is the American gateway to the Pacific Rim, which is emerging as the dominant economic zone of the next century. The Los Angeles-Tokyo commercial and informational connection will shortly eclipse that of New York-London.

As the United States continues to turn its attention from Europe toward Asia, USC and Southern California will benefit even more. Our students, faculty and alumni will benefit from global ties that will serve them well in the decades ahead. And our international alumni will not only continue to serve USC as major donors and recruiters of outstanding new students, they will open doors around the world for all members of the Trojan Family.

USC Chronicle: Does USC have much competition in the area of internationalization?

SBS: Yes. The competition is growing quickly. American higher education is beginning to internationalize in the same way American business and industry has internationalized to a dramatic extent over the last 25 years. Universities are riding a wave in this area. The good news is that we happen to be out in front of that wave, while others are trying to figure out how best to ride it. But we must remember that our competition is formidable – Cornell, Stanford, Harvard, M.I.T. and many others.

USC Chronicle: What is USC's strategy, then?

SBS: For starters, our Board of Trustees elected two new members last December – Ronnie Chan, a highly successful Hong Kong developer, and Toshiaki Ogasawara, a prominent publisher in Japan. They join trustee Mochtar Riady, an influential business leader in Indonesia, as well-placed Asian leaders

who can strengthen USC's presence on the Asian side of the Pacific Rim.

Our provost, Lloyd Armstrong Jr., has announced a far-reaching set of academic programs and partnerships in that region. Provost Armstrong and Senior Vice President for University Advancement Alan Kreditor are working to open at least three regional offices in Asia this year, to help with student recruitment, alumni relations, parental relations, joint ventures and fund raising. The provost is also establishing "country desks" here on campus, by appointing some of our best area specialists to provide their expertise to USC people who want to develop relationships with particular Asian nations.

USC Chronicle: What are we doing in the way of international research?

SBS: We're doing a lot more internationally funded research in many disciplines, because American research universities collectively are the center of research excellence around the world. There is no other research establishment anywhere in the world that comes even close to the 100 best research universities in the United States taken as a group. People want research done by us – by American universities in general – because that's where the expertise is, whether the research be sociological, biological, pharmacological or engineering related. So we're getting more funding from foreign corporations and foreign governments for research. And I think we're going to see a lot more collaborative research taking place in the future, because foreign governments and universities don't just want Americans to do studies for them; they want their own faculty to learn the techniques of first-class research.

Again, there is tremendous competition with other American universities in this area. But our goal is to get a disproportionately large slice of the pie – and I think we're going to be able to do that. Our School of Pharmacy is doing research with Japan; the School of Business with Hong Kong, China, Japan, Korea, Singapore, Taiwan and Indonesia, the School of Engineering with Taiwan, Urban Planning with Korea and Vietnam, Public Administration with Malaysia, Cinema-Television with the Japanese; the Southern California Earthquake Center has done research with Japan, China and other nations; Medicine has done research and development for Chile; the School of Education is working with Taiwan. We're creating a universitywide environment for working with other nations.

We also do a lot of teaching abroad. There's a tremendous shortage of educational infrastructure in many nations. There are opportunities for us to offer short courses, courses for credit and specialized instruction in cooperation with Asian universities. These offerings might include some of the more advanced courses in engineering or management. Guilbert Hentschke, dean of our School of Education, is working to set up some fairly unique international doctoral programs in professional education, and Edward Blakely, dean of Urban and Regional Planning, has created an innovative masters program in South Korea, in conjunction with a university and a government agency there.

But what does activity like this mean in terms of the university's overall academic mission? The fact that USC is so effective in educating leaders from around the world helps the cause of peace – by promoting economic development and international understanding. And that reflects our central mission, which is the development of human beings and society as a whole through the cultivation and enrichment of the human mind and spirit.

But there are some other tangible benefits for all of us as Americans. By bringing promising students from other countries to USC, we give our domestic students a big competitive advantage – a global advantage. USC's strategic plan points out that our students will have to function in a world that is rapidly becoming more international. Their effectiveness will be enhanced by understanding the languages and cultures of the people with whom they will interact.

In the years ahead, American students at USC will receive better preparation for life in an emerging global society than their counterparts elsewhere. Why? Because of close contact with students from over 100 different nations. And because of an outstanding – and growing – array of international programs that expose students to life in many other societies. Our students can study issues of worldwide concern in the Center for International Studies, the International Business Education and Research (IBEAR) MBA program, the Global Environment Center, the Overseas Studies Center, the Center for Multiethnic and Transnational Studies and a large number of other specialized units.

USC Chronicle: How do you see this nation's international role changing in coming years?

SBS: I'm convinced that, in the next half century, the United States will continue to be the principal world center for science, art, culture, communications and military power. And in all probability, this nation will continue to have the world's strongest economy.

But I doubt that our economic and cultural dominance in the years ahead will be as strong as it has been during the latter half of the 20th century. So our young people will face much tougher competition during their lifetimes than most of us have had to confront. In particular, they will have to learn to shed their insularity, broaden their horizons, and work more effectively with their peers in other countries.

Therein lies a major challenge for all levels of the American educational system. And here at USC, we're addressing this challenge by developing partnerships with universities, businesses and governments around the world, and by educating new generations of American and international leaders for life in a globally interdependent society.

What better place to learn those life skills than in a truly international university like USC, and in a truly international setting like Southern California? I think we have something that will be increasingly attractive to students from the Midwest, the Northeast and other areas of the country. By the same token, foreign students coming here can enter into American life in a truly international city and region.

So when it comes to internationalization, we have a very compelling opportunity: our students can benefit, our faculty can benefit, our alumni can benefit and our society can benefit. ❖

During a 1993 visit to the Republic of Korea, president Steven B. Sample and senior vice president for university advancement Alan Kreditor had an audience with Korean President Kim Young Sam (center). USC alumnus Park Seh-jik (right), a member of the Korean National Assembly, attended the meeting.

Left, standing atop Beijing's Grand Hotel, Kathryn and Steven B. Sample look out over the city with their hosts, Nanjing University president Qinyue Qu and professor Hixiao Wang, who served as interpreter during the 1995 visit.

Below, Sample's 1994 visit to Kuala Lumpur coincided with a reunion of USC's Malaysian alumni club.

HONORARY DEGREE RECIPIENTS

Per-Ingvar Brånemark

Doctor of Science
Honoris Causa

The career of honorary-degree recipient Per-Ingvar Brånemark is a dramatic illustration of chemist Louis Pasteur's dictum: "Chance favors the prepared mind." Recognizing the significance of an accidental occurrence in his laboratory, Brånemark went on to systematically develop a technique that revolutionized the field of reconstructive dentistry.

"Dr. Brånemark represents the highest level of achievement in our profession," said School of Dentistry dean Howard Landesman, who nominated the Swedish biotechnologist for a USC honorary degree. "As a researcher, as an educator and as a clinician, he is an example for all of us."

Brånemark's breakthrough was in the use of the metal titanium to anchor replacement teeth. In the early 1950s, while working on an altogether different problem, the scientist - who holds both M.D and Ph.D. degreees from the University of Lund – implanted custom-made titanium monitoring devices into experimental animals. When he tried to retrieve them, he found the metal had fused with the animals' bones.

He immediately understood the potential of the phenomenon for creating prostheses (artificial replacement body parts) that could anchor securely, permanently and safely to living bone.

Realization of this potential, however, came only after years of painstaking study to understand the precise conditions that permit the process he named "osseointegration."

After studying various possibilities for clinical application of his discovery, Brånemark concentrated on developing the process for jawbone-anchored substitute teeth. Such an implant – inserted into the jaw, immobilized and allowed to heal with minimum disturbance – would soon find itself surrounded by a layer of connected, compact bone.

It took years of further study and controversy to convince a skeptical medical establishment, including Swedish government regulators, to accept his procedure for dental prostheses. Brånemark won over his critics largely through his scrupulous documentation of research and clinical trials.

Osseointegration is now widely accepted, with nearly 1.5 million implants in place since its discovery.

Meanwhile, Brånemark and other researchers are building on his original work by investigating the use of titanium prostheses for other body parts.

The 67-year-old scientist has previously received 10 honorary degrees from universities in the United States, Canada, Finland and his native Sweden, along with special honors such as the City of Paris Medal, the First Trophy of European Odontology, the Schweitzer Research Award, the Harvard School of Dental Medicine Medal of Achievement, the Swedish Society of Medicine's Soderberg Prize and the Swedish King's Golden Medal of the Eighth Dimension in the Ribbon of the Order of the Seraphim.

Brånemark is currently an emeritus professor of anatomy at the University of Goteberg, in Goteberg, Sweden, as well as director of the Institute for Applied Biotechnology, also in Goteberg. He has published more than 250 articles in medical and scientific journals.

"It will be a privilege to welcome Dr. Brånemark to USC, as a colleague and a friend," said Landesman.

– Eric Mankin

Commencement Speaker

John H. Johnson

Doctor of Laws
Honoris Causa

Chicago publisher John H. Johnson's story proves you can be a success even when everyone says your project will fail. He was often discouraged, and there were plenty of roadblocks along the way, but Johnson had an idea he believed in. So he forged ahead with the motto: "What can you do by yourself, with what you have, to get what you want?"

Fifty years later, the man who wouldn't take no for an answer heads a publishing empire with 11 million readers. Since 1945, Johnson has published America's premier black-audience magazine, *Ebony*.

One of America's most successful entrepreneurs, Johnson will deliver the main address at USC's 113th commencement ceremony. In addition to delivering the address, the publisher will receive an honorary degree.

Johnson's philosophy?

Have a good idea, find a niche and provide a service. Even failure can be a success, if you learn from it, Johnson has found. Of his seven publishing ventures, only three have been hits. But they've been big ones.

In 1942, with no other capital than a $500 loan against his mother's furniture, the 24-year-old entrepreneur parlayed his dream of publishing "a magazine of negro comment" into a "black gold mine." He launched *Negro Digest*, the forerunner to *Ebony.*

The new digest-type magazine would be about the accomplishments of African-Americans. Johnson pre-sold subscriptions, then recruited friends to ask for the periodical at Chicago newsstands. He did the same in New York City, Philadelphia and Detroit, as circulation climbed to 50,000 copies a month. The first issue featured contributions by Carl Sandburg, Langston Hughes and early civil-rights leader Walter White.

Today, Johnson is chairman and CEO of the Johnson Publishing Co. Inc., the largest black-owned publishing company in the world and the publisher of *Ebony*, for 50 years the nation's most widely circulated black-oriented magazine. The company also publishes *Jet* and *EM–Ebony Man* magazines, markets Fashion Fair Cosmetics worldwide and is involved in television production, notably of the annual American Black Achievement Awards presentation.

A new Johnson publication premiered in South Africa in November 1995. To create *Ebony South Africa* – that nation's first major media with black majority ownership and control – Johnson put together a multiracial partnership. He personally serves as editor and publisher.

Johnson's empire also publishes books and employs more than 2,600 people. Yearly sales top $316 million.

Johnson, who received the USC Journalism Alumni Association's Distinguished Achievement Award in 1969, has said that "to start a good business, you have to have a good idea. You look for opportunities, and you look for services you can render — either those that aren't being rendered at all, or those that you can provide better." Add luck, timing and old-fashioned hard work, and you have Johnson's formula for success.

The publisher's autobiography, *Succeeding Against the Odds*, was released by Warner Books in 1989. In its pages, Johnson chronicles his early life in Arkansas with his widowed mother, his move to Chicago, and his first job – in the early 1940s – as an office boy at Supreme Liberty Life Insurance Co. In his spare time, the ambitious clerk culled printed articles about black Americans from various sources into a weekly digest – laying the humble foundation for a meteoric rise in the publishing world.

Today, Johnson's daughter, Linda Johnson Rice, is president and chief operating officer of Johnson Publishing. The USC alumna also sits on the university's Board of Trustees.

The publisher's wife, Eunice W. Johnson, is secretary/treasurer of the corporation. She is also producer-director of the *Ebony* Fashion Fair, the world's largest traveling fashion show. Since its inception in 1958, the event has raised more than $42 million for various charities.

The Johnson family is active in many charities, including the United Negro College Fund and the Boys and Girls Clubs of America.

The key to *Ebony*'s success, according to Johnson, is giving subscribers what they couldn't get elsewhere: "*Ebony* has been No. 1 for the past 50 years. Do you think we could do that without being in tune with our readers? Business is not a matter of black or white. Business is business. And running a successful business is just winning more often than you lose."

There is an elegance to Johnson's "winning." For example, today, the publisher is chairman and CEO of the very same insurance company that first employed him.

Johnson's autobiography notes: "You never know where a job, however small, will lead you. It's in your best interest, then, to do every task assigned you well."

– Christine E. Shade

HONORARY DEGREE RECIPIENTS

Jacquelin Perry

Doctor of Science
Honoris Causa

Given the treatment options available in the 1960s, Jacquelin Perry's 13-year-old polio patient could only look forward to a life dominated by paralysis and marked by an early death.

Then Perry, one of the first woman orthopedic surgeons in the United States, performed an innovative procedure to fuse the girl's entire spine and neck, making breathing easier and permitting the child to sit up for long periods of time.

The revolutionary surgery enabled the girl to return to classes at school, go on to college and eventually complete a Ph.D. Today, Perry's polio patient works as a Spanish teacher.

Such opportunities to change the course of a life are what continue to motivate Perry, a retired USC faculty member who, at 77, is chief of pathokinesiology services at Rancho Los Amigos Medical Center in Downey.

"I believe life is for living," she said, "not just existing."

Perry's work has won her an honorary degree from USC, which she will accept at the 113th commencement ceremony.

Professor and chair of physical therapy and biokinesiology Helen J. Hislop, who nominated Perry for the honor, said the pioneering surgeon's achievements and dedication are impressive by any standard.

"For 50 years, she has consistently given her entire intellectual capability to relieve patient's problems – usually problems that no one else would tackle," said Hislop.

Perry, she noted, was the first person with the "courage and audacity" to attempt a complete spinal fusion, which restores breathing and mobility to polio patients suffering from life-threatening spinal curvatures.

"Her contributions go well beyond the patients she has seen as an orthopedist," said Hislop. "She has trained hundreds of other orthopedists over the years. They're working in Europe, in Taiwan, in the Philippines, all over the world."

Perry's work has pioneered the use of computers, video and other electronic equipment to diagnose and treat patients. The equipment can analyze in astonishing detail the movement of a patient's limbs, joints and muscles to pinpoint the exact obstacles to movement that must be overcome or alleviated. Therapists can use this data to refine treatments, permitting patients to attain far greater mobility than previously was possible.

Perry's current focus is on treating walking disorders – especially those caused by cerebral palsy – strokes and other brain impairments. She is also investigating the physics of how muscles and joints behave when spinal-cord injury patients propel themselves in wheelchairs. In other studies, she is examining the gait mechanics of below-the-knee amputees walking with modern prosthetic feet.

Born in Colorado in 1918, Perry moved to California in 1924. After earning a baccalaureate degree in physical education from UCLA, she went to work in 1941 as a physical therapist at Walter Reed Army Hospital in Bethesda, Md.

After five years, Perry returned to California to study medicine at U.C. San Francisco, graduating in 1950. After completing a residency in orthopedic surgery, Perry was recruited by Rancho Los Amigos Medical Center to help launch a new rehabilitation program. It was the start of an extraordinary 38-year relationship.

Concurrently, Perry rose through the ranks of the USC faculty to become a professor of orthopedic surgery and physical therapy. In addition to her duties as chief of the pathokinesiology department at Rancho Los Amigos, she serves as director of that facility's post-polio services.

Today, Perry is regarded as one of the world's foremost orthopedists and rehabilitation specialists, a reputation bolstered by a host of honors and awards conferred by orthopedic, physical therapy, orthotic and prosthetic societies; by polio survivors and cerebral palsy patients; and by international universities and medical centers.

Perry's scholarly contributions include more than 270 scientific papers. In 1992, she authored *Gait Analysis: Normal and Pathological Function*, the definitive work in the field.

Being honored by USC is an unexpected pleasure for Perry. "I happen to like helping people," she said. "If other people recognize me for that, that's nice, but really it's just the icing on the cake. The best part comes from taking care of your patients."

– Jon Nalick

David L. Wolper

Doctor of Fine Arts
Honoris Causa

When USC undergraduate David L. Wolper left school to start a film distribution company in 1949, he wasn't trying to revolutionize the entertainment industry.

But he did.

One of the most prolific and renowned television and film producers in the world, Wolper will receive an honorary degree for his outstanding contributions to the entertainment industry. The degree will be awarded at the 113th commencement ceremony.

The degree highlights a career that has netted Wolper two Academy Awards (including the prestigious Jean Hersholt Humanitarian Award), 40 Emmys, seven Golden Globes, five Peabody Awards and the French National Legion of Honor.

Wolper produced the first television program ever to be nominated for an Academy Award, the groundbreaking "The Race for Space" (1958), which chronicled the American and Russian space programs. Documentary specials that explore the human condition became his trademark, including such award-winning productions as "The Making of the President 1960" (1963) and "The Rise and Fall of the Third Reich" (1968).

After becoming the industry's foremost producer of television documentaries, Wolper practically invented the entertainment miniseries with "Sandburg's Lincoln," which aired over six nights in 1975. He went on to produce the miniseries "Roots" (1977), "Roots: The Next Generations" (1979), "The Thorn Birds" (1983), "North and South" (1984) and "Queen" (1993).

The multi-talented Wolper soon expanded his repertoire to include live, outdoor special events. Most notable are his production of the spectacular opening and closing ceremonies for the 1984 Olympic Games in Los Angeles, and "Liberty Weekend," the four-day celebration of the 100th anniversary and relighting of the Statue of Liberty's torch.

His 27 specials for National Geographic from 1965-75, along with his "Jacques Cousteau Specials" in the late 1960s and early 1970s, set the standard for TV nature documentaries. He has also produced feature films, including *This Is Elvis* (1981), *Imagine: John Lennon* (1988) and the classic fantasy *Willy Wonka and the Chocolate Factory* (1971).

The seeds for this outstanding career were planted in New York City, when the 11-year-old Wolper attended the 1939 World's Fair – an experience that changed his life.

"I saw television," Wolper remembers, "and I said, 'That's what I want to do someday.' I was very young, but I knew television was the future."

Wolper took a major step toward realizing his dream by enrolling at USC in 1947, where he studied cinema and journalism. (The 1947 curriculum offered no courses in television production.)

At USC, Wolper became business manager of the campus humor magazine, *WAMPUS*, where he worked alongside another budding talent, humorist Art Buchwald.

"Art and I would spend every day together up in our office, right on the corner of the Student Union Building looking down on Tommy Trojan," Wolper said. "We had a great view of what was going on in the university."

Wolper left USC in 1949 to start a small film distribution company with a partner. "My goal was just to be in the television business, to do *something* in television," said Wolper. "We were just a couple of kids selling films to television stations around the country."

Success in film distribution encouraged Wolper to try his hand at producing.

"Most notable among Mr. Wolper's contributions to film and television is his use of the medium as a catalyst for cultural awareness, political commentary and social change," said Elizabeth Daley, dean of the School of Cinema-Television and executive director of USC's Annenberg Center for Communication.

"From his first award-winning documentary, which introduced the Russian space program to the Western world, to his National Geographic prime time television series, to "Roots," Mr. Wolper has consistently endeavored to create projects which both entertain and educate," Daley said.

Wolper has served as both an inspiration and a leader to thousands of USC students. He sits on the School of Cinema-Television's Board of Councilors and served on the original board of the campaign to build the cinema-school complex. USC has honored Wolper with the College of Continuing Education Award for Distinguished Service to the Community, the Alumni Merit Award and the General Alumni Association's Award for Outstanding Achievement.

"I left USC early so I could go out and get into this new business called television," said Wolper, who will also receive a Mary Pickford Award at the School of Cinema-Television's satellite commencement ceremonies at the Shrine Auditorium. "I didn't have a chance to go back. I went right to work, and I've been working ever since. So it's a great honor to have USC recognize me in this way."

– Robert Wynne

Salutatorian

Clint N. Chua

In 1975, the year of Clint N. Chua's birth, *Dirty Harry* was very big in Manila.

"Make my day," said the good-humored Chua, doing his best Clint Eastwood impersonation. And, in fact, the 21-year-old computer science major's day *was* made when he received word that he'd been chosen as one of two salutatorians for the Class of 1996.

"Naturally, it's an honor," said Chua, who will begin work toward his Ph.D. in computer graphics and multimedia at the School of Engineering this fall. "I always try to do my best. But of course, I'm wondering what I could have done better, what I may have missed."

IRENE FERTIK

The salutatorian is the second highest-ranking student in a graduating class. Chua tied for the honor with sociology major Eileen Mears *(see story, p. 9).*

Far from the sterotype of a "computer nerd," Chua is charming, loquacious and very, very funny.

"It's the older generation that thinks computers are boring. The outlook among 18-year-olds is that computer science is cool," said Chua. "Of course, there are some aspects that are boring, but that builds character."

Like the other Clint, Chua is hooked on Hollywood. In fact, after he finishes his Ph.D., the multimedia enthusiast hopes to work with the kind of computer-generated animation and special effects that created the Disney Studio's *Toy Story*.

"It's pictures that people find most compelling," said Chua. "I have considered getting an M.F.A. in computer animation at the School of Cinema-Television, but I'm not certain that I could do that *and* my Ph.D. at the same time. Images are exciting, and it's the visual aspect of computer science that I'm into."

Like his future, Chua's past is tied up with the movies. The Filipino native credits cinema with polishing his command of American English.

"I've picked up a lot of idioms by watching movies – things that weren't taught in class," said Chua. "When I interviewed at IBM, they were so impressed by my knowledge of English that they offered me a job. Of course, IBM doesn't hire international students, but they thought I was a resident."

Besides English, the polyglot Chua also speaks Tagalog, Mandarin and Fujian, and he is currently struggling to master Japanese.

"I come from a multi-lingual background, but Japanese – oooh, that's hard," he said.

Chua, who made the School of Engineering dean's list from 1992 through 1995, was also the recipient of the School of Engineering Dean's Scholarship, the Widney Alumni House SCion's Scholarship, the Golden Key National Honor Society's Junior-Level Scholarship and the University Trustee's Award.

He is currently president of the Upsilon Pi Upsilon Honor Society for Computing Sciences, and last year, he served as that body's vice president. Chua is also a member of the W.V.T. Rusch Undergraduate Engineering Honors Program, the Phi Kappa Phi National Honors Society and the Golden Key National Honors Society.

The School of Engineering has awarded him a three-year Powell Fellowship in computer science to support his doctoral studies.

Though his first love is the movies, Chua is eclectic in his taste for pop culture. For fellow foreign students and future engineers, he has this advice: read old copies of the discontinued comic strip "Calvin & Hobbes."

"Calvin and Hobbes were very philosophical and use lots of good GRE words," Chua said. "A lot of scientists and engineers are into them, and they certainly helped me to build my vocabulary."

– Zsa Zsa Gershick

Valedictorian

Kemal Demirciler

A terrible thing happened to Kemal Demirciler on his way to USC.

It was 1985. Demirciler was a star high school athlete who had just won the northern Cyprus championship in discus throwing and was part of the territory's top high school basketball team.

He was also a gifted violinist and an honor student who had received a prestigious scholarship from the Cyprus American Scholarship Fund. The 17-year-old scholar-athlete's bright future seemed inevitable: admitted to USC, he'd already purchased his plane ticket to Los Angeles. Then, three weeks before his flight, Demirciler nearly severed his spinal cord in a diving accident.

Physical rehabilitation consumed the next seven years of his life. Today, Demirciler remains in a wheelchair, with no use of his legs and only limited use of his arms.

But in 1992, he came to USC to finish what his accident had interrupted. And on May 10, having compiled a flawless 4.0 GPA in electrical engineering, the 28-year-old graduating senior will give the valedictory address – about USC's multicultural environment and world peace – to the Class of 1996.

His main regret is that death prevented his father from witnessing this triumphant moment.

In terms of his own disability, the matter-of-fact student doesn't tolerate self-pity or even resignation.

"When something like this happens," he said, "you don't appreciate what is taking place. In the first year or so, you always expect to recover. You don't believe – you can't believe – that this is a permanent situation. I still do not believe it. I do not see myself in this wheelchair 10 years from now: I do not accept this chair. I expect to be out of it later in my life."

In the meantime, Demirciler believes his struggle so far may have actually been a help in winning academic honors and in developing patience. "I learned that you have to allow time in order to achieve things," he said.

Before his accident, Demirciler was able to easily place in the top five percent of his class and find time for sports, recreation and everything else. Afterward, things changed. In physical rehabilitation, he devoted at least eight hours a day to exhausting exercises that seemed to produce no change in his disability or his physical condition.

"And I spent years doing this. I just got used to working and not expecting to see dramatic results," he said.

Demirciler (the "c" in the name is pronounced like the "z" in "azure") had the unfailing support of his family – his mother and sister (who will both be attending the ceremony, along with his grandmother) and his revered father. But he also got used to disappointment and self reliance – hard lessons taught by three unsuccessful surgeries, each of which, he said, "left me with a little less movement than I had before."

So by the time Demirciler arrived at USC, experience had prepared him "to sit at the table and work."

Commencement

➤ *continued from page 1*

tist-teacher-surgeon Per-Ingvar Brånemark, orthopedist-rehabilitation scientist Jacquelin Perry and motion picture and television producer David L. Wolper.

Brånemark revolutionized the field of reconstructive dentistry with help from the scientist's best friend: serendipity. He systematically turned a laboratory accident into a major breakthrough in the use of metal titanium to anchor replacement teeth.

Perry, who was recruited in 1955 to build the rehabilitation program at Rancho Los Amigos Hospital in Downey, embarked on an extraordinary career that has touched every conceivable aspect of physical rehabilitation. She is considered one of the foremost orthopedists and rehabilitation specialists of her time.

Wolper, during his 40 years in show business, has made 500-plus films and garnered more than 150 awards, including two Oscars, 40 Emmys, seven Golden Globes and five Peabodys. His achievements as a producer also include the critically acclaimed opening and closing ceremonies for the 1984 Los Angeles Olympic Games, and the award-winning television miniseries "Roots." *(For profiles of the commencement speaker and honorary degree recipients, see p. 6 and 7.)*

IRENE FERTIK

About 25,000 to 30,000 people are expected to converge on Alumni Park for this year's commencement, said university marshal John Callaghan.

As they were last year, the ceremonies will be touched by the magic of Harry Blackstone, who will announce the arrivals of robed graduates, faculty and honorees as they march into Alumni Park.

Internet users who cannot attend in person can monitor the event via the World Wide Web, where they will see live video images taken by "Tommy Cam," a camera located at the northeast corner of the Student Union. To view the proceedings, users can navigate to the Web address http://www.usc.edu/dept/TommyCam

The biggest challenge of any commencement, said Callaghan, is getting the processional of column marshals and graduates to move smoothly into Alumni Park.

"We allow about 30 minutes to get everybody in there," Callaghan said, "and we manage to do it each year." The column marshals, all of whom are senior faculty members, use walkie-talkies to coordinate with Callaghan and Anthony W. Fox, assistant director of the Trojan Marching Band.

"I tell them how much time we've got, where they should be and when to close ranks," said Callaghan, who has served as commencement marshal for the past three years. "As the day draws near, you get more ex-

IRENE FERTIK

There was a lot of work for him to do.

"In the first few semesters, I was able to keep up at the pace required for a full course load," he said. "From the fourth semester on, I realized that my best was not enough to perform perfectly in every class. But I could not reduce my classes because my scholarship required me to take the full load throughout my undergraduate education."

A less determined scholar would have settled for a few A-grades. Demirciler dug in and worked even harder. The extra effort yielded more tangible results than physical rehabilitation ever had.

"After the first semester, when my father saw my grades, the joy in his eyes surprised me," he said.

Demirciler's father, Onay, was his role model. An engineer and educator, the senior Demirciler founded the first university in northern Cyprus – the Turkish section of the divided island. Near the city of Famagusta, a main connecting road is now named after the institution-builder.

So Demirciler was devastated when, in his sophomore year, his father was diagnosed with a brain tumor and died six months later.

"He left behind a name we could be proud of," said the son, who hopes to continue his father's life work.

For the present, however, Demirciler plans to stay at USC and work toward a Ph.D., delving deeper into his undergraduate specialties of artificial intelligence, field theory, electronics and computer systems.

His ultimate purpose, however, is not research, but education. He hopes ultimately to return to Cyprus and found a university in his father's name – one that will serve not just the island and the Turkish mainland, but attract students from all over the Eastern Mediterranean, helping to diversify the local economy, which is now heavily dependent on tourism.

"A high quality university, a research university, can be a locomotive for the area," Demirciler said. "I know this is not easy to do. I know. But it is a goal worth accomplishing."

If persistence of purpose can accomplish it, there will be an Onay Demirciler University. It's hard to imagine any task more difficult than the one Demirciler has already achieved, symbolized by his presence on the podium as valedictorian.

– Eric Mankin

Salutatorian

Eileen L. Mears

Academics and action go hand-in-hand for Eileen Mears, one of this year's two commencement salutatorians.

During her three-and-a-half years at USC, Mears – like many of her classmates in the Department of Sociology – pored over studies of structural inequality, bilingual education, immigration politics and cultural pluralism.

But Mears was determined to apply her newfound knowledge outside the classroom. So, while maintaining a 3.99 GPA and making the dean's list each semester, Mears volunteered continuously as a tutor or mentor in local schools and courthouses.

"I feel like the neighborhood was as much a classroom as the classroom itself," said Mears, who graduated in December with a double major in sociology and German.

Mears tutored students enrolled in USC's Neighborhood Academic Initiative, a rigorous college-preparatory program for primary and secondary students. She also tutored students in a neighborhood grammar school through the Joint Educational Project, a USC program designed to encourage volunteer work by undergraduates.

Mears later became a counselor for JEP's "Students Talking About Race," a diversity-awareness program that travels to local primary and secondary schools. She also volunteered for Free Arts, an organization that gives art instruction to abused and neglected children at the Los Angeles Children's Court. Last fall, Mears started tutoring a young neighbor – a junior-high school student who lived near her off-campus apartment.

"I really feel like people have a responsibility to get involved and contribute and not just go about their daily business and hope others will take care of the problems," Mears said.

The student-activist melded her academic interest in multiculturalism and immigration with real-world experience during a semester at the Albert Ludwigs University in Freiburg, Germany. After a graduate seminar opened her eyes to the plight of Bosnian and Kurdish refugees living in Freiburg, Mears and a fellow student launched informal "therapy play sessions" for refugee children.

"Many of the parents had been so traumatized that their kids wouldn't play or talk," she said. "We just wanted to get them laughing and playing so they could have some relief from the terrible environment in which they live."

Mears traces her interest in multiculturalism to her own background as the child of a German-born schoolteacher and an American-born university research administrator. But the interest didn't blossom until she moved into USC's inner-city neighborhood from her hometown of Orinda, a San Francisco Bay-area community.

"USC opened my eyes to urban life and issues," she said. "I didn't just study cultural pluralism. I lived it."

Mears' sense of civic responsibility even extended to campus governance. She sat on USC's Peer Review Board, a five-student panel that rules on violations of conduct codes, and served as a student representative on USC's Undergraduate Studies Curriculum Committee, which evaluates new college courses and majors.

Despite her wide array of extracurricular activities, Mears – who attended USC on a prestigious Trustee Scholarship – earned a string of academic honors during her undergraduate years, capping it all off by graduating *summa cum laude*. She is the recipient of the 1996 Emma Josephine Bradley Bovard Award, which goes to the woman with the highest GPA in her graduating class. In addition, Mears has won a $7,000 graduate fellowship from the Phi Kappa Phi honor society.

"Of course finals were stressful," said Mears, "but I enjoyed the academics and my classes, and I could see how they were relevant to what was going on around me."

Mears will enroll next fall at the University of California at Berkeley, where she will work toward a Ph.D. in sociology. Eventually, she hopes to pursue an academic career and work as a consultant, possibly in the area of workplace diversity.

Since completing her coursework in the winter, Mears has returned to San Francisco, where she currently works as an employee-benefits analyst at Kaiser-Permanente's Northern California headquarters. She also volunteers as a research assistant on a study assessing the effectiveness of a four-year-old diversity awareness program at Children's Hospital in Oakland, Calif.

"I have come to see the discomfort and challenge of opposing viewpoints as an opportunity for understanding and learning," said Mears.

– Meg Sullivan

cited. You just hope that you've made all the arrangements and everything goes smoothly."

As in previous years, a colorful array of international flags, representing the countries of all the international graduates, will be hanging from Von KleinSmid Center. The 1996 graduating class represents 105 countries, from Albania to Zimbabwe, according to Dixon C. Johnson, executive director of the Office of International Students and Scholars.

Indicative of this international presence, this year's valedictorian is Cyprus-native Kemal Demirciler, who will receive his bachelor of science degree in electrical engineering. Demirciler – a quadriplegic since 1985 – will speak on USC's multicultural environment and the hope for world peace.

As in past years, commencement organizers have acquired about 50 wheelchairs for visitors who may need them. The wheelchairs will be available at Topping Student Center.

For their satellite ceremonies, a number of University Park Campus academic units are featuring prominent speakers. *(See p. 11 for a listing of satellite locations, times and speakers.)*

Producer-writer Brian Grazer, the driving force behind some of the film industry's most popular stars and projects, will address graduates of the School of Cinema-Television. His recent projects, in partnership with Ron Howard at Image Entertainment, includ *Apollo 13*, starring Tom Hanks and Ed Harris, and *The Paper*, starring Michael Keaton, Glenn Close, Marisa Tomei and Robert Duvall.

IRENE FERTIK

Graduates of the School of Journalism will hear author and syndicated columnist Richard Reeves, who has made a number of award-winning documentary films. His best-selling book *President Kennedy: Profile of Power* was cited by *Time* magazine as the Best Nonfiction Book of 1993.

Other special speakers include Thomas Stevens, principal trumpet player for the Los Angeles Philharmonic Orchestra, who will address School of Music graduates; Drew S. Days III, Solicitor General of the United States, who will speak to graduates of the Law School; 1961 alumnus Dennis R. Beresford, chairman of the Financial Accounting Standards Board, an independent group that sets rules for the accounting profession, who will address graduates of the School of Accounting; Los Angeles councilwoman Laura Chick (District 3), a 1987 alumna, who will address School of Social Work graduates; and writer-director Joan Tewkesbury, a 1960 alumna, who will speak to School of Theater graduates. ❖

The youngest grad

Her contemporaries are just entering college, but senior Bronwyn Pollock is already making plans to collect her M.B.A., J.D. and Ph.D. – not necessarily in that order.

by Meg Sullivan

Bronwyn Pollock's achievements would be impressive for any college senior.

During her years at USC, she has risen to a top slot in student government, won a commendation from Los Angeles Mayor Richard Riordan and worked as a campaign aide for former Los Angeles Unified School Board president Roberta Weintraub.

But Pollock isn't just any senior.

At 18, she's the youngest participant in the 1996 commencement exercises, graduating at an age when most of her peers are autographing high school yearbooks and thumbing through college guides.

"In my head, I feel completely like a senior, but deep down I'm still 18," Pollock said.

How the Los Angeles native has managed to pack so much activity into so few years is a study in talent, ambition and raw energy.

As a student at the Eagle Rock Highly Gifted Magnet School – a campus for youths with IQs over 150 – Pollock took her SATs at age 11. Soon after, she started to receive a flood of recruitment letters from tough, rigorous universities. After a stint in Cal. State-Los Angeles' Early Entrance Program, one of the nation's largest programs for accelerated students, Pollock set her sights on USC.

"I wanted to look back on my college years as a time when I'd grown as a person – not just as a little genius," she said. "USC offered the perfect balance between social, academic and community involvement."

At 15, Pollock enrolled as a sophomore. Majoring in political science and minoring in cinema-television, the teenager devoted her spare time to community service. During her first summer break, she worked as an aide to Riordan, spearheading a project to motivate absentee landowners to take responsibility for their properties. In one instance, she mobilized foreign investors and the Los Angeles Police Department to clean up a mid-city street that had become a magnet for prostitution.

Her efforts won her a community service commendation from Riordan. They also brought her to the attention of Weintraub, who last spring signed Pollock on as a campaign assistant during the former Los Angeles Unified School District president's unsuccessful bid for a seat on the Los Angeles City Council.

Last summer, the city hired Pollock once again. The USC student served as a junior lobbyist for Los Angeles in Washington, D.C. She was the youngest intern to ever fill the post.

During the school year, Pollock threw herself into campus activities. She served for three years on the Norman Topping Student Aid Fund Governing Board, a 15-member body that screens students from the surrounding community for scholarships. She was selected to be a member of four academic honor societies, and, in her senior year, was tapped by the Order of the Torch – a group of student ambassadors who represent the university before booster clubs, high school students and other organizations.

Pollock made her biggest mark, however, on campus in student government. As a sophomore, she was confirmed as a justice on the USC Judicial Council. The body acts as the Student Senate's supreme court, deciding cases involving complaints of campaign fraud. This semester, she was named the council's chief justice.

"It was very hard to be 16 and to say to a 22-year-old, 'OK, you're out of this election,'" she said.

"The experience was a test of learning to work with competitive and aggressive personalities."

Pollock received some formal training in the subject this past year, when she participated in a leadership class co-taught by president Steven B. Sample and School of Business Administration professor Warren Bennis.

"It has changed me more than any class I took," she said. "President Sample's class made us feel good about ourselves, and it made us feel that what we're doing is important. You have these powerful people giving you attention and kudos, and it validates all of your efforts in college."

Pollock still isn't sure what she'll do after graduation. She may take a job helping to set up a junior police academy with Weintraub, she said. There's also a possibility that she will serve as a Coro Fellow. She has been selected as an alternate for the yearlong national fellowship in public affairs.

But the lack of an up-to-the minute game plan by no means translates into a lack of ambitious goals.

"I'd like a J.D., an M.B.A. and a Ph.D. – in which order, I'm not sure," she said. "In the short term, I want to run a movie studio. In the long term, I want to run for office. I'd like to retire on the Supreme Court." ❖

IRENE FERTIK

USC's youngest 1996 graduate, Bronwyn Pollock: "In my head, I feel completely like a senior, but deep down I'm still 18."

Inscribed on the wall

Created in 1994, the Leavey Library's Wall of Scholars honors students who have been awarded national or international scholarships or fellowships, or who have received certain awards or scholarships from USC. On April 25, the Skull and Dagger Society hosted a reception for the 1995-96 additions to the wall.

The newly inscribed students are: (front row, from left) Kemal Demirciler, University Trustees Award; Natasha Viquez, Kellie Rymes and Angela Marie Martinez, 1996 Andrew W. Mellon Minority Undergraduate Fellowships; Clint N. Chua, 1996 University Trustees Award; (back row, from left) Sam W. Smith, 1996 Churchill Fellowship and 1996 Andrew W. Mellon Minority Undergraduate Fellowship; Brenda A. Shoo, 1996 Andrew W. Mellon Minority Undergraduate Fellowship; Ashley L. Morgan, 1996 Barry M. Goldwater Scholarship; Margaret Scully Granzeier, Derek L. Robinson and Alexander R. Small, 1995 Dean Joan M. Schaefer Scholarships. Additional scholars not pictured here are: James R. Emerson and Heather K. Ross, 1995 Rotary International Ambassadorial Fellowships; Eileen L. Mears, 1996 Emma Josephine Bradley Bovard Award; David D. Bowman, 1996 Rockwell Dennis Hunt Scholastic Award; Eric H. Tse, 1995 Barry M. Goldwater Scholarship; Cesar Lopez and Erica J. Warnstrom, 1995 J. Wesley Robb Endowed Scholarships in Human Values; Joseph A. Clougherty, Paul J. Radzilowski and Allison M. Rowland, who received 1995 Fulbright Graduate Study and Research Abroad Grants; Arthur J. Barela III, 1996 Andrew W. Mellon Minority Undergraduate Fellowship; and Alegre Nani Von Ramos, 1995 Dean Joan M. Schaefer Scholarship.

– Christine E. Shade

IRENE FERTIK

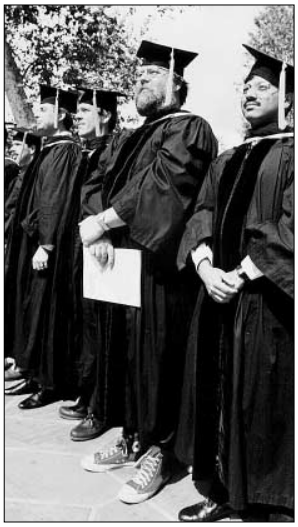
SATELLITE CEREMONIES

RENE FEPPA

University Park Programs

The following is a list of locations and announced speakers for satellite ceremonies. Unless noted otherwise, ceremonies are scheduled for 10:30 a.m. Friday, May 10. If not specified, receptions will follow ceremonies at the same sites.

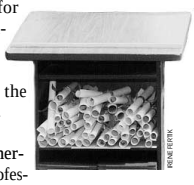
- Air Force ROTC: Physical Education Patio, 2 p.m.; Col. James Watt.
- Army ROTC: Physical Education Patio, 6 p.m., May 9.
- Navy ROTC: Seeley G. Mudd 123, 1 p.m.
- Accounting: Bovard Auditorium, 2:30 p.m.; Dennis R. Beresford, chairman, Financial Accounting Standards Board; reception, Crocker Plaza.
- Annenberg School for Communication:
  - Communication (undergraduate): Associates Park.
  - Communication (graduate): Annenberg West Lobby, 11 a.m.; Stephen Port, Hawthorne chief of police; reception prior to ceremony.
  - Journalism: Lawn south of Harris Hall; author and columnist Richard Reeves; reception prior to ceremony.
- Architecture: Watt Hall Patio; Douglas Noble, assistant professor of architecture.
- Business Administration:
  - Undergraduate: Shrine Auditorium, 11 a.m.; Jeffrey Barbakow, CEO, Tenet Health Care Corp.; reception follows at Breezeway between Hoffman Hall and Bridge Hall.
  - Graduate: Shrine Auditorium, 6 p.m.; Tania Modic, founder and president, Western Investment Co.
- Cinema-Television: Shrine Auditorium, 2:30 p.m.; producer Brian Grazer; reception follows at Lloyd and Carson Sound Stages.
- Education: Dedeaux Field; Lois Slavkin, founder and former executive director, Praxis.
- Engineering: Archimedes Plaza; dean Leonard Silverman.
- Fine Arts: Fisher Courtyard, 11 a.m.; Timothy Whalen, senior program officer, J. Paul Getty Trust grant program.
- Gerontology: Gerontology Courtyard, 11 a.m.
- Graduate School: Bovard Auditorium, 11 a.m.; Barbara Solomon, vice provost for faculty and minority affairs.
- Law: South steps of Von KleinSmid Center, May 13, 4 p.m.; Drew S. Days III, U.S. solicitor general; reception follows on South Lawn of Alumni Memorial Park.
- College of Letters, Arts and Sciences:
  - Group 1: (American studies and ethnicity, classics, comparative literature, languages, linguistics, philosophy, religion): Founders Park; Nancy Vickers, dean of curriculum and instruction.
  - Group 2: (natural sciences, environmental studies, dental science, exercise science, mathematics, physics and astronomy, psychobiology): lawn southeast of Doheny Library; Maria Pellegrini, dean of research.
  - Group 3: (international relations and political science): Intramural Field; Joseph Aoun, dean of faculty.
  - Group 4: (anthropology, economics, geography, history, psychology, sociology, SWMS): Cromwell Field; Morton O. Schapiro, dean of letters, arts and sciences.
- Music: Lawn south of Ramo Hall; Thomas Stevens, principal trumpet player, Los Angeles Philharmonic Orchestra.
- Public Administration:
  - Undergraduate: Fagg Park; Rosalie Abuzman Ramos, valedictorian of the Public Administration graduating class.
  - Graduate: Fagg Park, 2 p.m.
- Safety and Systems Management: Bovard Auditorium, 11 a.m.; reception follows on ISSM lawn.
- Social Work: Lyon Center; Laura Chick, Los Angeles City Councilwoman, District 3; reception follows on lawn north of Leavey Library.
- Theatre: Bing Theater; Joan Tewkesbury, writer-director; reception, Bing Theater patio.
- Urban Planning and Development: Pardee Plaza; Edward J. Blakely, dean of urban planning and development; reception follows in courtyard of the Mudd Hall of Philosophy. ❖


RENE FEPPA

JOHN LOZEY

Health Sciences Programs

The following is a list of locations and announced speakers for satellite ceremonies for health science programs. Unless noted otherwise, ceremonies are scheduled for Friday, May 10, following the general commencement exercise, beginning at 9 a.m. Receptions will follow satellite ceremonies at the same sites, except where specified.


RENE FEPPA

- Biokinesiology and Physical Therapy: Center for the Health Professions, 5 p.m.; Marylou Barnes, professor emerita of physical therapy, Georgia State University at Atlanta.
- Medicine*: Shrine Auditorium, Sunday, May 26, 2 p.m.; David A. Kessler, commissioner of food and drugs, U.S. Department of Health and Human Services; and Edward E. Cornwall III, assistant professor of surgery, LAC+USC Medical Center.
- Nursing: Lot K2, 10:30 p.m.; reception at Hedco Neurosciences Building lawn; Patricia Benner, professor of nursing, University of California at San Francisco.
- Occupational Therapy: Lawn west of Leavey Library, 10:30 a.m.; Mary Foto, president, American Occupational Therapy Association.
- Pharmacy: Norris Library Quad, 3 p.m.; Kimberly Belshé, director, California Department of Health Services.
- Primary Care Physician Assistant*: Norris Library Quad, 4 p.m. June 9. Speaker to be announced. ❖

* *The School of Medicine and the Primary Care Physician Assistant Program do not participate in the main commencement exercises.*

USC IN THE NEWS

Top-10 stories for 1995-96

Thousands of articles and broadcasts around the world carried news about USC this year. We chose these stories as our favorites. Each was special in what it told the world about USC. Each appeared in a leading medium, which other press would follow with their own versions of the story. And each advanced the university's Strategic Plan, displaying work that was international and interdisciplinary, spotlighting unique qualities of USC undergraduate education or the university's impact on Southern California.

1 "Catalina Island: Perfect Laboratory," Sept. 25, *Orange County Register*

As part of the coverage of the announcement of USC's billion-dollar Building on Excellence fund-raising campaign, the story detailed USC's plans, beginning with the $5 million Wrigley gift, to raise more than $60 million to transform its Wrigley Marine Science Center into the Wrigley Institute for Environmental Studies on Catalina Island, a world-class teaching and interdisciplinary research facility. "In the past, the only thing we taught at Catalina was marine science," said Letters, Arts and Sciences dean **Morton O. Schapiro.** "In the future, we'll also teach environment-related courses involving geology, social science, international relations, the law and economics." President **Steven B. Sample** affirmed the university's commitment to the venture: "People everywhere are concerned about the environment. They're coming to realize that we share the same air, the same ocean, the same natural resources." The Sept. 24 *Daily Breeze* also featured the story. "We really hope that by doing this rehabilitation, we make it attractive for researchers. ... But what I'm especially hoping for is that it will offer USC students a unique opportunity," said LAS dean of research **Maria Pellegrini.** Previous stories on the campaign announcement ran in the *Los Angeles Times* and *Daily Breeze*, in the Associated Press and City News Service, and on KNX-AM and KABC-FM. The story led the way for other USC features in Orange County media and beyond.

2 "In the Beginning," April 21, CBS News "Sunday Morning"

"In a small room with a standard computer in the Leavey Library at USC, **Bruce Zuckerman** and his colleague, **Marilyn Lundberg,** have been able to do the impossible, read the unreadable and match the unmatchable," began a national news report that reached an audience of millions. Filmed in the Leavey Library, the story showed the humanities scholars piecing together ancient texts, such as fragments of the Dead Sea Scrolls, using computer images of infrared photographs. "With our work, the puzzle gets solved and a sentence changes in the encyclopedia, a new line gets written in a lexicon, a new tiny bit of ancient religion is clarified," said Zuckerman, who explained his work as an obligation to history. "It's our job, our responsibility as people in this modern age, to use every means we can to make this thread of information continue and endure after we're gone, too." The CBS segment followed features in the *New York Times, Los Angeles Times* and other major media around the world.

3 "Best Doctors in America," March 1996, *Good Housekeeping*

Six USC physicians appeared in the March *Good Housekeeping* magazine's list of the country's best heart and stroke doctors. They are: **David Faxon**, interventional cardiology; **Mark Fisher,** stroke; **Steven Giannotta**, neurovascular surgery; **Arno Hohn,** pediatric hypertension; **Shahbudin Rahimtoola,** heart failure and valve disorders; **Vaughn Starnes,** listed twice, for adult heart and lung transplants and pediatric transplants; and **Martin Weiss,** neurosurgery.

Seventeen USC faculty (10 on the Health Sciences Campus and seven at Childrens Hospital Los Angeles) were listed in the March *American Health* magazine's list of the best doctors in America. But we chose the *Good Housekeeping* list because of its enormous circulation – more than 5 million.

Numerous research stories also made the news, but these lists underscored the quality of care university physicians deliver to their patients.

4 "At USC, a Democrat and a Republican Can Work Together," Feb. 3, *Los Angeles Times*

USC undergraduates were the focus of many wonderful stories this year. The USC Annenberg School for Communications' debate team was featured in the *Los Angeles Times* and the *Los Angeles Daily News*; a recently graduated music student who won the coveted International Prokofiev Piano Competition was featured in the *Los Angeles Times*; and a sophomore, working under the direction of the School of Engineering's Multimedia Laboratory, created an interactive CD-ROM that was featured in the *San Diego Union-Tribune.*

But we chose the *Los Angeles Times* feature about two seniors who were able to disagree passionately about politics and remain friends, because of the good example the pair set for professionals in today's ruthlessly combative political arena. The article described how **Sarah Szalavitz**, president of the California College Democrats, and **Stephen Lesher**, chairman of the California Republican Party's Youth Committee, have cooperated in running USC's Program Board to attract such diverse speakers as Oliver North and James Carville to campus. The article also quoted political scientist **Alison Dundes Renteln**, who has taught both undergraduates in her classes. "I wouldn't be surprised if they ended up as colleagues in the U.S. Senate. Or one in the White House, picking the other to be in his or her staff or Cabinet," she said.

5 "Trojan Dragons," Winter 1996, *USC Trojan Family Magazine*

USC has long ranked at the top of lists of American universities

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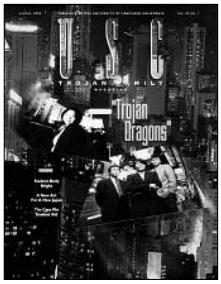
USC IN THE NEWS

educating foreign students – especially students from Asia. This story sought out and profiled our alumni who are leading, and shaping, the world's fastest growing economies. A new generation educated in Western universities is changing the economic face of the globe,



and USC graduates are leading the charge.

The story was written for and first published in USC's alumni magazine because that publication reaches a circulation of 200,000 people who are critical to the success of the university's Strategic Plan and its campaign. The story is now being used as background for stories under development by major media.

6 "USC's Tele-Garden Project," Oct. 8, CNN's "FutureWatch"

The School of Engineering's project is meant to be a living model of small-planet social interaction, according to robotics expert **Ken Goldberg**: "We're trying to contrast the pace of the plant and animal world with the pace of technology." Computer scientist **George Bekey** was also interviewed, adding: "I think it's important for us in the future to find ways of bridging the gap between our view of ourselves and our view of the machine and the technology of robots." Thousands of users continued to plant real seeds and tend herbs, vegetables and flowers (or dig them up) by manipulating a robotic arm from places around the world. And thousands of other stories followed, in media ranging from *Garden Design* magazine to the *Times of London.* "FutureWatch" featured several other science stories at USC this year, including biomedical engineer **Theodore Berger's** interdisciplinary team of collaborators' creation of chips that simulate brain function and computer scientist **Leonard Adleman's** work using DNA as a computing medium (a reprise of one of last year's top stories). But the Tele-Garden, and its coverage, created its own hyperspace community, allowing people from around the world to take part in an interdisciplinary USC project that combined art, science and social interaction.

7 Multimedia Vanguard, March 18, *US News and World Report*

U.S.News & WORLD REPORT
Multimedia vanguard

Following earlier stories in other media, the USC School of Engineering's program in multimedia was spotlighted in the magazine's closely watched academic ranking issue. "At the end of the Cold War, it was apparent to me we needed to go in another direction," dean **Leonard Silverman** said, explaining how the school had made a deliberate decision to concentrate resources in what the magazine calls "one of the hottest specialties in engineering." The story spotlighted previously publicized multimedia programs, such as a retraining effort for laid-off defense engineers, also focusing on what it called our "interdisciplinary approach" to the subject: "At USC, faculty have been culled from the departments of communication, engineering, computer science, music and cinema/television." The story positioned the school's program as a national leader in the frantically growing field. Other media, including the *Los Angeles Times,* followed with features.

8 "Should Government Regulate Information on the Internet?" March 22, PBS's "Firing Line"

USC provided the stage as legal expert **Susan Estrich** and her fellow panelists on the anti-regulation side debated a pro-regulation team led by "Firing Line" founder William F. Buckley. The debate attracted a large and enthusiastic audience of faculty, staff, administrators and students.

The Henry Salvatori Foundation for Public Affairs joined with the College of Letters, Arts and Sciences to sponsor the event, which was organized by School of International Relations director **Jonathan D. Aronson,** with the assistance of LAS senior associate dean **Carol Dougherty** and LAS development officer **Teresa Hauser.** The show underscored the acumen of a USC scholar and, at the same time, delivered an extraordinary visual display of the university's new graphic identity.

9 "The New Chimpanzees," Sept. 6, NBC National Geographic special

Anthropologist **Craig Stanford** was featured in this examination of human-like traits among the primates. Stanford's recent findings suggest chimps eat much more meat than previously thought. "This is the best way to give us some kind of a window onto the origins of meat-eating among our own ancestors four million or more years ago," Stanford said. Stanford's work was also featured in the *New York Times, Chicago Tribune, Science News* and other publications. The NBC story, which included interviews with distinguished adjunct professor of anthropology and occupational therapy **Jane Goodall**, was the latest story to highlight USC's unique role in the study of chimpanzee behavior in the wild. Scholars from various disciplines are cooperating to build a visual archive, already 200 CD-ROMs strong, that will preserve the Jane Goodall Research Center's priceless videotapes and render them far more useful to researchers, eventually providing Internet access. Related features on the project ran in the *New York Times* "Science" section.

10 "Unraveling a Cruel Mystery of the Mind," April 29, *Los Angeles Times*

Los Angeles Times

The neurosciences faculty have provided many features in recent years, but this year we chose the work of a psychology student whose personal and intellectual odyssey through both undergraduate and graduate work at USC culminated in the publication of a landmark study that will help to pinpoint one of the causes of schizophrenia and may lead to ways to prevent the disease. "As a high school student in La Habra, **Meggin [Hollister]** looked for answers to what caused her sister's illness [schizophrenia] in college biochemistry texts. As an undergraduate at USC, she hung on the words of noted researchers. Finally, as a graduate student there, she got to test a theory of her own, based on a medical complication her mother had while carrying Annick [Meggin's sister] in her womb." Hollister's work is part of a growing body of research indicating that obstetrical complications rather than social conditions can cause the disease. Much of that work has been done at USC. Hollister had previously appeared on the Feb. 5 "Morning Edition," National Public Radio's morning newscast, with one of her mentors, psychologist **Sarnoff Mednick**, who described his earlier research, which established links between obstetrical complications and schizophrenia. ❖

CALENDAR

in brief

♦ Developmental Disabilities
The USC University Affiliated Program presents a university-wide, interprofessional and inter-departmental symposium on Developmental Disabilities, today, May 6, from 8:30 a.m. to 1 p.m., at the Davidson Conference Center. The aim of the symposium is to create an institute on disabilities which will facilitate interprofessional and interdepartmental research, training and policy development. Work groups will focus on issues including autism, aging, cultural diversity and competence, managed care and services for those with developmental disabilities or chronic illness. Robert A. Jacobs of the Childrens Hospital of Los Angeles, participates. For more information, call 669-2300.

♦ USC Radio Highlights
The final concert of the USC Opera Season brings to a close USC Radio's "Music from USC" series of broadcasts of performances in Bovard Auditorium. Benjamin Britten's *Midsummer Night's Dream*, directed by Frans Boerlage and conducted by Ward Holmquist, can be heard on Wednesday, May 8, at 8:30 p.m.

The classic sound continues with a live broadcast of the Pacific Symphony on Thursday, May 9, at 8 p.m. Carl St. Clair conducts Brahms' Academic Festival Overture, op. 80, Tchaikovsky's Violin Concerto in D, op. 35 and the Symphony No. 3, op. 36, the "Symphony of Sorrowful Songs" by Gorecki. Sheryl Staples is the violinist and Cheryl Parrish the soprano.

On Saturdays, May 18, at noon, a new program begins. Culinary expert Lynne Rossetto Kasper celebrates the love of food of all cultures, haute and humble, in "The Splendid Table." It is followed at 1 p.m. by "On Holiday," a musical tour of Europe. Robert Aubry Davis launches the first of four programs with a visit to the Danish Radio Concert Hall and a stroll through Denmark's famed Tivoli gardens with Danish pianist and humorist Victor Borge, who debuted there 70 years ago.

On "Sundays at Four," ensembles from the R. D. Colburn School of Performing Arts perform May 12 in a live broadcast from the Leo S. Bing Theater at the Los Angeles County Museum of Art. On May 19, the program features pianist Nohema Fernández playing works by Cuban composers.

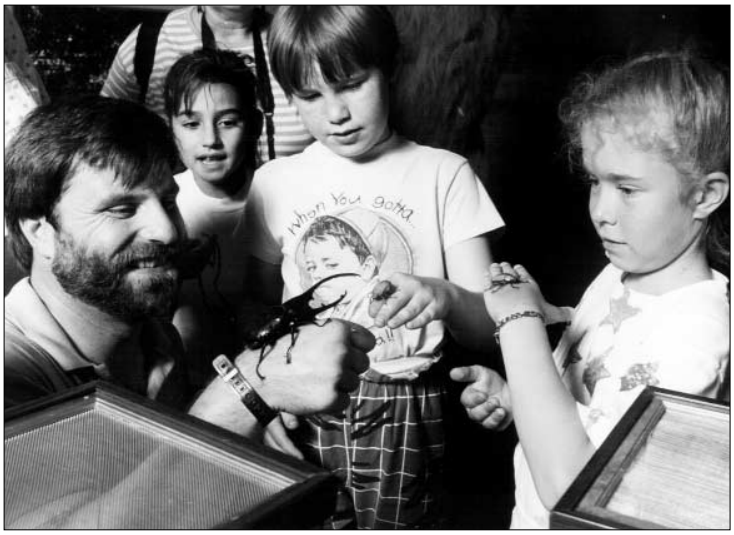
Two special programs are slated for, May 13 and May 17, both at 8:30 p.m. The Endellion String Quartet performs works by Beethoven, Shostakovich and Schubert's "Death and the Maiden" on Monday. The Pasadena Symphony, under the baton of Jorge Mester, with violinist Robert McDuffie, performs Puccini's *Crisantemi*; Sibelius' Violin Concerto in D, op. 47; and Tchaikovsky's Symphony No. 5 in E, op. 60, on Friday.

♦ Entrepreneurial Expertise
Thomas J. O'Malia, recently appointed director of the Entrepreneur Program at the School of Business Administration, shares his philosophy in a talk titled "Creating an Entrepreneurial Spirit in a Corporate Setting" as part of the Executive Breakfast Series co-sponsored by the School of Business Administration's Office of Executive Education and the General Alumni Association. Before coming to USC, O'Malia served as CEO of Shop Trac, a firm he co-founded and successfully merged. O'Malia's talk takes place Tuesday, May 14, from 7:30 a.m. to 9 a.m., in the Davidson Conference Center. Admission, which includes breakfast, is $28 for GAA life members and $35 for non-members. For more information, call 740-8990.

♦ Cuban Dreams
Two young novelists discuss their fascination with Cuba at a literary event sponsored by the Department of Special Collections of the Doheny Memorial Library and the Boeckmann Center for Iberian and Latin American Studies. Both Pico Iyer, author of *Cuba and the Night*, and Cristina Garcia, author of *Dreaming in Cuban*, have covered Cuba as journalists for *Time* magazine and both have written acclaimed first novels about the island. Tuesday, May 14, at 3 p.m., in the Feuchtwanger Memorial Library, on the second floor of the Doheny Library. Admission is free. For more information, call 740-2328.

♦ Mac Users
Faculty, staff and students can network with other enthusiasts and share tips and triumphs at the next meeting of the Macintosh User Group, an ongoing series of free meetings, chaired by Len Wines of the Emeriti Center. Meetings are held each month throughout the year on Wednesdays, from 11:45 a.m. to 1 p.m., in Room B of the Leavey Library. Summer meetings are slated for May 15 and June 19. Bring at least one formatted high-density disk for shareware. For more information, call 937-4082.

♦ Open House
USC's Orange County Center for Professional and Continuing Studies provides an opportunity for people who live or work in the Orange County area to continue their studies. The center – located at 2361 Campus Drive in Irvine – offers master's degree courses in business administration, social work, engineering, and safety and systems management, as well as a doctorate in education. The Center hosts an open house where prospective and continuing students can meet some of the faculty, staff, deans and program directors who will conduct courses in the fall. It is slated for Wednesday, May 15, from 5 to 7 p.m., in the Center's Atrium. Refreshments will be served. For more information, call 752-5505.



Art Evans, director of the Natural History Museum's Insect Zoo, compares his giant Hercules Beetle to smaller varieties of the insect crawling on the hands of young visitors. Among the largest insect zoos in the United States, the museum's collection features more than 30 live exhibits, ranging from hissing cockroaches to scorpions and tarantulas.

♦ Investment Tips
The USC Benefits Office presents the last of four workshops designed to help faculty and staff make better informed decisions about the future when it comes to investments and retirement plans. "Getting the Most Out of Your Investments: A Workshop on Asset Allocation" describes how different investments act in economic shifts and outlines different types of risks and how to manage them. It takes place on the Health Sciences Campus at the Doheny Eye Institute, Rm. 3200, on Thursday, May 16, at 1 p.m., and on the University Park Campus, in the Seaver Science Auditorium, on Friday, May 17, at 8 a.m. and again at noon. Each workshop lasts approximately 1 1/2 hours. No R.S.V.P. is required, but seating is limited. For more information or to schedule an appointment with a Fidelity Investments representative, call 740-7585 (UPC) or 342-1011 (HSC).

♦ Bug-o-mania
If you can't get to the Natural History Museum's 10th Annual Insect Fair, don't despair. The Ralph M. Parsons Insect Zoo is a permanent feature of the Natural History Museum's Discovery Center on Exposition Park. The Insect Fair takes place at the Los Angeles County Arboretum, 301 N. Baldwin Avenue in Arcadia, on Saturday and Sunday, May 18 and 19, from 9 a.m. to 4 p.m.; admission is $5 for adults, $3 for students and $1 for children. For more information, call (818) 821-3222. The Ralph M. Parsons Insect Zoo, at 900 Exposition Blvd. is open 10 a.m. to 5 p.m., Tuesday through Sunday. Admission is $6 for adults, $3.50 for students, and $2 for children, and on the first Tuesday of each month and for children under 5, it's free. For more information, call 744-DINO.

♦ Exhibits
The "Final Presentations and Reviews" of the graduating students of the School of Architecture will be exhibited at the Verle Annis and the Helen Lindhurst Galleries through Thursday, May 9. The galleries are located on the second floor of Harris Hall, and the lower level of Watt Hall, respectively. Hours are Monday through Friday, from 10 a.m. to 6 p.m. Admission is free. For more information, call 740-2097.

"Photographic Memoirs - Three Perspectives: Israel, Egypt and Poland," the debut solo exhibition of works by Los Angeles-based photographer Lynda Levy continues at USC Hillel until Monday, May 13. The gallery at 3300 S. Hoover Blvd., is open 9 a.m. to 6 p.m., Monday through Thursday and 9 a.m. to 3 p.m., Friday. Admission is free. For more information, call 747-9135.

♦ National Museum Day
Stop by for cookies and punch, when the Gamble House in Pasadena celebrates National Museum Day by opening its doors on Sunday, May 19, for self-guided tours, free of charge. Jane Apostol, author and local historian, will sign copies of her book *Museums Along the Arroyo*, from 3:15 to 4 p.m. The celebration is a collaboration of five museums located in the region surrounding the Arroyo Seco. There will be a free shuttle service between the five museums, as parking is not available at the Gamble House. The Greene and Greene-designed house, a stately craftsman home built for David and Mary Gamble of the Proctor and Gamble Company, in 1908, will be open for tours starting at 11 a.m. until 4:30 p.m. For more information, call (818) 793-3334.

♦ Gala Season Finale
Richard Rintoul and Autumn Fritzges, music director and assistant conductor, respectively, of the Colburn Chamber Orchestra and The Orchestra Da Camera, present a performance at Bovard Auditorium on Sunday, May 19, at 7:30 p.m. The program comprises "The Wasps Overture" by R. Vaughan Williams, "Variations on a Theme of Frank Bridge" by Benjamin Britten, Beethoven's "Egmont Overture," Sibelius' "Finlandia," and Brahms' "Academic Festival Overture." A reception follows the performance. Admission is free. For information, call 743-2306.

♦ Scholarly Meetings
Angela James and Darnell Hunt, of the department of sociology, present their research into black families and black youth at a meeting of The African American Faculty Association, Wednesday, May 15, at 5:30 p.m. For more information, call 740-8847. ❖

FOR THE RECORD

JOB OPENINGS

The following are newly listed positions at the university and previously listed jobs that had not yet been filled as of April 26, 1996. Full job descriptions and minimum requirements are available at the Employment Office.

It is the university's policy that employees who are laid off receive priority in being relocated to other positions for which they qualify. When applying for a position, please refer to the job title, grade level and requisition number. The Jobs Still Available sections below have been edited for space and do not necessarily represent an exhaustive listing of openings. For complete job listings, visit the Employment Office at 3535 S. Figueroa St., Room 100, on the University Park Campus, or 1975 Zonal Ave., KAM 409, at the Health Sciences Campus. For more information, call 740-7252 at UPC or 342-1010 at HSC. An employee representative for disabled persons is available on the employment staff.

EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION POLICY

The University of Southern California is proudly pluralistic and firmly committed to providing equal opportunity for outstanding men and women of every race, creed and background.

This university is also firmly committed to complying with all applicable laws and governmental regulations at the federal, state and local levels which prohibit discrimination, or which mandate that special consideration be given, on the basis of race, religion, national origin, gender, age, Vietnam veteran status, disability, sexual orientation, or any other characteristic which may from time to time be specified in such laws or regulations. This good-faith effort to comply is made even when such laws and regulations conflict with each other.

USC strives to build a community in which each person respects the rights of other people to be proud of who and what they are, to live and work in peace and dignity, and to have an equal opportunity to realize their full potential as individuals and members of society. To this end the university places great emphasis on those values and virtues that bind us together as human beings and members of the Trojan Family.

NEW JOBS (UPC)

Public Communications Manager II (JC129123) - Req. 29966 - USC News Service — (Grade L)

Project Manager (JC135015) - Req. 29809 - WESRAC — (Grade K)

Special Project Manager - Administration - (JC111063) - Req. 31292A - Graduate School — (Grade K)

Systems Programmer III (JC165315) - Req. 31785 - Engineering/ISI — (Grade K) Note: position is located in the Washington D.C. area.

MIS Specialist (JC165701) - Req. 31320A - UCS Administration — (Grade I)

Publications Specialist (JC129021) - Req. 31319 - UCS User Services — (Grade H)

Editor/Writer II (JC129015 129015) - Req. 31797 - University Advancement/Development Communications — (Grade I)

Research Laboratory Technician III/Supervisor (JC185019) - Req. 31491 - Gerontology — (Grade H)

Administrative Assistant (JC111019) - Req. 32251 - Cinema TV (Grade G)

Administrative Assistant (JC111019) - Req. 32338 - SBA/Center for Effective Organization (Grade G)

Editorial Assistant (JC129007) - Req. 31492A - Gerontology (Grade G)

Research Lab Technician II (185015) - Req. 31345 - Dentistry (Grade F)

Child Care Teacher I (JC159011) - Req. 29715 - Child Care Center (Grade E)

Assistant Child Care Teacher 53% (JC159007) - Req. 29714 - Child Care Center (Grade D)

Head Coach , Women's Soccer (JC131119 131119) - Req. 31507 - Athletics — (Grade 00)

Sergeant (JC147027) - Req. 32175 - Public Safety (Grade QG)

JOBS STILL AVAILABLE (UPC)

Computer/Electronics Engineer, Sr. (JC 167315) - Req. 31780 - Engineering/ISI (Grade M)

Program Director (JC133019) - Req. 32291 - KUSC Radio (Grade L)

Program Director (JC133019) (Director, Language Center) - Req. 31813 - LAS/Administration (Grade L)

Program Director (JC133019) - Req. 30341A - University Advancement/GAA (Grade L)

Public Communications Manager II (JC129123) - Req. 31344 - Dentistry (Grade L)

Systems Programmer IV (JC165319) - Req. 31289A & 30264A - Engineering/ISI (Grade L) Note: Positions are Located In The Wash. D.C. Area.

Systems Programmer IV (JC165319) - Req. 30869 - UCS/UNIX Systems (Grade L)

Clinical Staff Psychologist (JC187207) - Req. 29593 & 29594 - Student Health Center (Grade HH)

Development Officer III (JC129325) - Req. 30845 - Law Center (Grade K)

Development Director III (JC129325) (Regional Director Of Development) - Req. 30327, 30328A & 30329A - University Advancement/ Development (Grade K)

Executive Assistant (Academic) (JC111035) - Req. 31167A - Education (Grade K)

Process Support Engineer (JC167407) (VLSI Test Engineer) - Req. 31784 - Engineering/ISI (Grade K)

Program Manager (JC133015) - Req. 31355 - Community Economic Development/Business Expansion Network (Grade K) (Position expires with contract, March 1997)

NEW JOBS (HSC)

Research Associate - Req. 2978 - Biochemistry - (Grade 00)

Research Associate - Req. 0894, 2450 - Cell & Neurobiology - (Grade 00)

Research Associate - Req. 2481, 2482 - Institute for Genetic Medicine - (Grade 00)

Research Associate - Req. 1386, 1389 - Medicine - (Grade 00)

Development Officer II - Req. 2451 - Cancer Center - (Grade J)

Accountant I - Req. 2086 - USCP Surgery - (Grade I)

Project Specialist - Req. 1701 - Medicine - (Grade I)

Research Lab Tech III - Req. 1407 - Pathology - (Grade H)

Research Nurse - Req. 1412 - Medicine - (Grade HF)

Medical Secretary - Req. 2083 - USCP Surgery - (Grade HD)

Collector - Req. 1775 - Radiology Associates - (Grade HD)

Clinic Assistant - Req. 2085 - USCP Surgery - (Grade HC)

Data Mgmt. Spec. - Req. 1581 - Pathology - (Grade F)

Data Mgmt. Spec.(80%) - Req. 0336 - Ped/CMC-HMRC - (Grade F)

Research Lab Tech II - Req. 1311, 2456 - Pathology - (Grade F)

Research Lab Tech II - Req. 1607 - Pharmacy - (Grade F)

Secretary II - Req. 0906 - Medicine - (Grade F)

Office Assistant I - Req. 0576 - Medicine - (Grade D)

Office Assistant I - Req. 2043 - USCP Internal Medicine - (Grade D)

Research Lab Asst. - Req. 1191 - Clinical Labs - (Grade C)

JOBS STILL AVAILABLE (HSC)

Project Manager - Req. 0839 - IPR - (Grade K)

Project Manager (60% & 100%) - Req. 1437, 1434 - Preventive Medicine - (Grade K)

Sr. Business Officer I - Req. 1480 - Family Medicine - (Grade K)

Statistician II - Req. 0840 - IPR - (Grade J)

Programmer Analyst II - Req. 1648 - Preventive Medicine - (Grade I)

Program Specialist - Req. 0842 - IPR - (Grade I)

Program Specialist - (50%-100%) - Req. 2035 - Neurology - (Grade I)

Project Specialist - Req. 0833 - IPR - (Grade I)

Statistician I (50%) - Req. 0841 - IPR - (Grade I)

Budget/Business Analyst - Req. 0056 - Gene Therapy Lab - (Grade H)

Graphic Designer - Req. 2913 - Peds/Instructional Imag. Center - (Grade H)

Staff Perfusionist - Req. 2501 - USCP Surgery - (Grade HI)

Nursing Supervisor - Req. 1481 - Family Medicine - (Grade HH)

Nurse Practitioner - Req. 1637, 1645 - Pediatrics/CMC-HMRC - (Grade HH)

Physical Therapist II - Req. 2958 - Physical Therapy - (Grade HG)

Registered Nurse-Lead - Req. 1619 - Family Medicine - (Grade HG)

Registered Nurse-Lead - Req. 1417 - Medicine - (Grade HG)

Clinical Lab Technologist - Req. 0031 - Pathology - (Grade HF)

Registered Nurse - Req. 0067 - Medicine - (Grade HF)

Registered Nurse - Req. 1784 - Radiology - (Grade HF)

Registered Nurse - Req. 0575, 1672 - USCP Internal Medicine - (Grade HF)

Research Nurse - Req. 1004 - Family Medicine - (Grade HF)

Research Nurse - Req. 2001, 0023 - Medicine - (Grade HF)

Research Nurse - Req. 1631- Pediatrics/CMC-HMRC - (Grade HF)

Specialized Imaging Tech. - Req. 0836 - IPR - (Grade HF)

Specialized Imaging Tech. - Req. 1415, 2010 - Medicine - (Grade HF)

Account Rep. - Req. 2040, 2041 - USCP General Administration - (Grade HD)

Account Rep. - Req. 1719, 1654 - USCP Surgery - (Grade HD) ❖

our primary mission

May 4, 1996

Dear Parents, Students, Faculty, Staff and Friends:

As the largest employer in the city of Los Angeles, we at USC try hard to treat our employees fairly and with dignity. We pay above-average wages with above-average benefits. We value the contributions made by our employees and try to recognize and reward outstanding service.

But the University of Southern California is a research university dedicated to the pursuit of knowledge, through scholarship and science, and the teaching of knowledge. skills, and artistic creation. This is our primary goal and core mission.

We believe that we must have flexibility in finding the most efficient ways to deliver services — from buying supplies to serving food to cleaning buildings — that support this primary mission. To this end, the University recently reorganized part of its custodial staff, expanding our contract with a company called ServiceMaster to clean certain University buildings that had been cared for by university employees.

The contract was negotiated with the explicit understanding that ServiceMaster would offer jobs to all affected employees subject to a pre-employment drug test with no cut in pay and would provide health care coverage. This promise has been fulfilled. Former USC custodians now working for ServiceMaster earn more than $7 per hour plus benefits.

Nevertheless, protesting the university's decision, a union (Local 399) which does not represent any USC or ServiceMaster employee on campus — and never has — joined with another union (Local 11, which represents USC food service employees) and disrupted recent University Day events on campus. The unions shouted down speakers and blocked access to planned activities. As a result of this demonstration and physical threats and intimidation, a court order now limits on-campus demonstrations by these unions.

Under the terms of the court order the unions are limited to ten pickets in the University's traditional free speech area, Hahn Plaza.

We will continue to try to resolve differences with all employees, staff and faculty in an equitable manner. But as a private university, USC must balance many objectives against finite resources in a highly competitive environment. We must also be able to continue to attract and retain world-class teachers and scholars. We must provide quality service for our students, and at the same time keep tuition increases to a minimum for families who are making great sacrifices to provide their children with a first-class education. We appreciate your understanding.

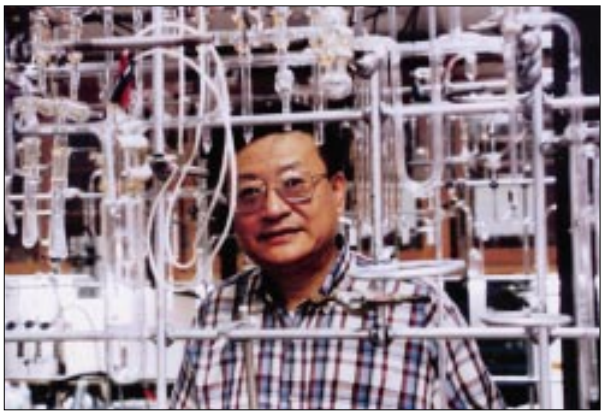
Signed,

Thomas H. Moran

Thomas H. Moran
Vice President, Business Affairs

DATING A CAVEMAN

"Peking Man" is older than he looks. That's the conclusion of pioneering geochronologist Richard Teh-Lung Ku, whose new analysis of one of the most important finds in human evolutionary history indicates that the fossils date from at least 100,000 years earlier than scientists previously believed.



IRENE FERTIK

Geochronologist Richard Teh-Lung Ku, in his lab.

by Eric Mankin

Ku dated the limestone caverns in which Peking Man dwelled at Zhoukoudian, not far from Beijing. In excavations that began in 1921, archeologists and paleontologists have recovered the remains of at least 40 individuals belonging to a hominid species that used fire and crudely fashioned stone tools but was anatomically distinct from *Homo sapiens.*

Working with professor Guanjun Shen of the University of Guizhou in China, Ku gathered cave limestone samples from the Peking Man site. Back in the lab, the researcher used state-of-the-art methods to show that the limestone from strata just above the layers containing Peking Man fossilized bones is close to 400,000 years old. Previous studies, using less advanced methods, dated the remains in the 200,000- to 300,000-year-old range.

Ku – a professor in the Department of Earth Sciences who was recently elected to fellowship in the American Geophysical Union for his pioneering work in the field of geochronology – helped develop the sophisticated methods used in the new analysis. The two scientists' preliminary findings will appear as a lead article in the August 1996 issue of the journal *Acta Anthropologica Sinca,* published in the People's Republic of China.

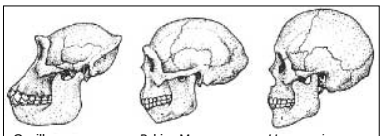
The dating of cave limestones ("speleothems") like those of Zhoukoudian uses principles of chemistry and nuclear physics. Such limestone forms where groundwater contains a high concentration of dissolved calcium and carbonate ions. When this water emerges from the ground, part of the dissolved carbonate "degasses" as carbon dioxide. At the same time, calcium carbonate precipitates, forming the spectacular deposits seen in limestone caves, such as stalactites, stalagmites and flowstones.

Fortunately for geochronologists, such limestone-forming groundwater often also contains minute quantities of dissolved uranium, which gets incorporated into the limestone crystals as they form.

The most common form of uranium, U-238, is unstable. At a slow but steady rate, it sends off subatomic particles. The process transmutes U-238 first into another uranium isotope, U-234, and then into an isotope of the element thorium, Th-230.

Thorium, unlike uranium, does not dissolve in water. Therefore, scientists reason, all Th-230 found in limestone must be the product of radioactive decay of U-238. By making precise determinations of the amounts of all three isotopes (U-238, U-234 and Th-230), and knowing the rate at which the transmutations occur, researchers can estimate the age of a rock. Basically, the higher the ratio of Th-230 to U-238, the older the limestone.

To get these ratios, scientists previously measured the minute amounts of radioactivity emanating from limestone. With proper instruments, they can distinguish between the radiation coming from decaying U-238, U-234 and Th-230 atoms.



Gorilla — Peking Man *Homo erectus* — *Homo sapiens*

The theory is good, but implementing it is difficult. The amounts of radiation produced are minimal, and even small measurement errors can lead to big errors in estimating age.

To significantly reduce the measurement errors requires the use of a device known as a mass spectrometer. This device can actually measure quantities of U-238, U-234 and Th-230 atom by atom, instead of waiting for them to decay and measuring their radiation.

Previously, even a mass spectrometer was not capable of counting the extremely small amount of U-234 and Th-230 found in samples like the Zhoukoudian material. But by upgrading and calibration of instruments pioneered by scientists at Caltech, Ku and his Caltech colleagues demonstrated in 1987 the feasibility of using mass spectrometry to make the kind of measurements demanded by the Zhoukoudian dating project. They achieved a 10- to 100-fold improvement in sensitivity and precision over the radiation-measuring methods.

The increased sensitivity also means that less material is required for analysis.

"We are able to select pure limestone crystals," said Ku, thus reducing the risk of a sample's being accidentally contaminated by older or younger non-carbonate material.

The mass spectrometric method also extends the time horizon for the method, allowing scientists to date material as far back as 600,000 years.

In addition to using a more sensitive dating method, Ku believes he has reduced error by analyzing undisturbed limestone from the strata in which the bones were found instead of studying the fossils themselves, as previous investigators had done.

According to Ku, there is evidence that radioisotopes can migrate in and out of bone during the fossilization process, affecting the accuracy of dating.

To double-check his data, Ku compared his mass spectrographic age determinations with results obtained from an alternate method – one using the isotopes Proactinium-231/Uranium 235. Though less precise than the U-238 isotopic ratio analysis, this method, too, confirmed the greater age of the finds.

The collaboration between Shen and Ku goes back more than a decade, to Shen's research on European caves for his dissertation at the University of Paris. Ku, then taking sabbatical leave from USC as a Fulbright Senior Scholar and Guggenheim Fellow visiting France, was brought in as an outside expert on geochronology. The two scientists have stayed in touch ever since.

In addition to his work at Zhoukoudian, Ku is currently engaged in numerous studies using subtle clues in ocean or lake sediments to study the past climate on Earth. One such study, for example, uses ratios of oxygen isotopes found in sediments from California's Mono Lake to reconstruct detailed climate fluctuations in the area since 10,000 years ago, shortly after the last Ice Age had ended.

The USC geochronologist used state-of-the-art methods to show that the limestone from strata just above the layers containing Peking Man fossilized bones is close to 400,000 years old.

Ku's research on the Zhoukoudian finds is supported by a grant from the National Science Foundation. Further field sampling and lab analyses are continuing. ❖

Students from Guizhou University collect limestone specimens at the Peking Man site in Zhoukoudian. The sign reads: "Discovery site of Peking Man cranial fossil, 1966."